

## CLAIMS

Please amend the claims as follows. This listing of claims replaces all prior versions.

1-37. (Canceled).

38. (Currently amended) A method of diagnosing schizophrenia and/or affective psychosis or susceptibility to schizophrenia and/or affective psychosis in an individual, wherein the method comprises determining if ~~SEMCAP3, N33, GRIK4, NPAS3, PDE4B~~ and/or ~~CDH8~~ gene(s) in the individual ~~has/have~~ the GRIK4 gene in the individual has been disrupted by a mutation or chromosomal rearrangement.

39. (Currently amended) The method according to claim 38, wherein any disruption is determined by detecting a relative level of mRNA expressed by ~~the/said SEMCAP3, N33, GRIK4, NPAS3, PDE4B~~ and/or ~~CDH8~~ gene(s) the GRIK4 gene.

40. (Currently amended) The method according to claim 38, wherein a level of ~~the/said SEMCAP3, N33, GRIK4, NPAS3, PDE4B~~ and/or ~~CDH8~~ gene products are the GRIK4 gene product is detected by an immunological technique.

41. (Currently amended) The method according to claim 40, wherein an antibody or antibodies specific for ~~the/said gene(s) is the~~ GRIK4 gene is/are used to detect said gene product(s).

42-45. (Canceled).

46. (New) The method of claim 38, wherein the mutation or chromosomal rearrangement is detected using high-throughput fluorescence *in situ* hybridization (FISH).

47. (New) The method of claim 38, wherein the mutation or chromosomal rearrangement is

detected using oligonucleotides designed to hybridize to the *GRIK4* gene.

48. (New) The method of claim 47, wherein the oligonucleotides are labeled.

49. (New) The method of claim 38, further comprising determining if the *SEMCAP3*, *N33*, *NPAS2*, *PDE4B* and/or *CDH8* gene(s) in an individual has/have been disrupted by a mutation or chromosomal rearrangement.

50. (New) The method of claim 49, wherein the mutation or chromosomal rearrangement in the *SEMCAP3*, *N33*, *NPAS2*, *PDE4B* and/or *CDH8* gene(s), is detected using high-throughput fluorescence *in situ* hybridization (FISH).

51. (New) The method of claim 49, wherein the mutation or chromosomal re-arrangement in the *SEMCAP3*, *N33*, *NPAS2*, *PDE4B* and/or *CDH8* gene(s), is detected using oligonucleotides designed to hybridize to the *SEMCAP3*, *N33*, *NPAS2*, *PDE4B* and/or *CDH8* gene(s).

52. (New) The method of claim 51, wherein the oligonucleotides are labeled.

53. (New) The method of claim 49, wherein any disruption is determined by detecting a relative level of mRNA expressed by the *SEMCAP3*, *N33*, *NPAS2*, *PDE4B* and/or *CDH8* gene(s).

54. (New) The method according to claim 53, wherein a level of the *SEMCAP3*, *N33*, *NPAS2*,

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*PDE4B* and/or *CDH8* gene products is detected by an immunological technique.

55. (New) The method according to claim 54, wherein an antibody or antibodies specific for the/said gene(s) is used to detect said gene product.